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(54) **NUCLEAR POWERED FACILITY THAT  
GENERATES CONSUMABLE FUELS**

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(57) **ABSTRACT**

**Related U.S. Application Data**

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filed on Aug. 16, 2011.

The present invention includes a system and method of producing consumable fuels generally including a thermal input device, a gasifier, a heat pump, and a product gas heat recovery device. Optionally, the system and method of the present invention includes a nuclear steam supply device as a thermal input. Optionally, the nuclear steam supply device includes a sodium fast reactor having a core outlet temperature of less than about 650° C.

(60) Provisional application No. 61/374,227, filed on Aug.  
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